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ATTY. DOCKET NO. 4810-66314-02

In re Patent Application of LIM, Sai K.

Serial No. 10/521,071

Group Art Unit: Not assigned yet

Filed: January 12, 2005

Examiner: Not assigned yet

For: HEMANGIOBLAST PROGENITOR CELLS

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed in the manner prescribed by 37 CFR 1.97(b) - (d) to satisfy the duty under 37 CFR 1.56 to disclose to the Office information, known to individuals associated with the filing and prosecution of the subject application, which is material to the examination of the application.

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This Information Disclosure Statement is being filed within three months of the filing date of a national application; within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; or before the mailing date of a first official action on the merits and therefore applicant respectfully requests consideration under 37 CFR 1.97(b).

In compliance with 37 CFR 1.98(a)(1), a list of all patents, publications, applications or other information submitted for consideration by the Office is hereby provided by way of the attached Form PTO/1449. (The Form PTO/1449 is substantially identical to the Form PTO/1449 filed

November 10, 2003 or (S. Patent Application No. 10/618,540.)

Pursuant to 37 CFR 1.98(d) no copies of the references are provided as these references were cited in a prior application from which priority is claimed under 35 USC 120, namely U.S. Patent Application No. 10/618,540, and as any Information Disclosure Statement submitted in the earlier application complies with 37 CFR 1.98(a) through (c).

It is respectfully requested that the information be expressly considered by the Examiner and that the references be made of record and appear among the "References Cited" on any patent to issue therefrom.

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Respectfully submitted,

SMART & BIGGAR

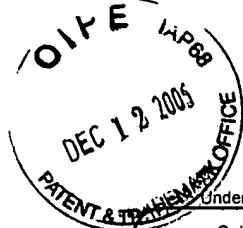


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Sheet 1 of 1

Complete if Known

Application Number	10/521,071
Filing Date	January 12, 2005
First Named Inventor	LIM, Sai K.
Art Unit	Not assigned yet
Examiner Name	Not assigned yet
Attorney Docket Number	4810-66314-02

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number Number-Kind code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Page, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS

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	B1	WO 00/11139 A	03/02/2000	t. Breeders, Inc.		<input type="checkbox"/>
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	B3	KOCHER, A.A. et al. (2001). Neovascularization of ischemic myocardium by human bone-marrow-derived angioblasts prevents cardiomyocyte apoptosis, reduces remodeling and improves cardiac function. <i>Nature Medicine</i> . Vol. 7(4): 430-436	<input type="checkbox"/>
	B4	MINEHATA, Ken-ichi et al. (2002). Macrophage colony stimulating factor modulates the development of hematopoiesis by stimulating the differentiation of endothelial cells in the AGM region. <i>Blood</i> . Vol. 99(7): 2360-2368	<input type="checkbox"/>
	B5	SCHUH, A.C. et al. (1999). In vitro hematopoietic and endothelial potential of flk-1 ⁺ embryonic stem cells and embryos. <i>Proc. Natl. Acad. Sci. USA</i> Vol. 96: 2159-2164	<input type="checkbox"/>

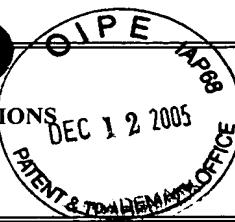
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Applicant LIM, SAI K.

Filing Date January 12, 2005 Group

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FIL.DATE IF APPROPRIATE
	A1	5	3	9	9	3	4	6	21/03/1995	ANDERSON ET AL.	424	93.21	30/03/1997
	A2	5	5	9	9	7	0	3	04/02/1997	DAVIS ET AL.	435	373	28/10/1993
	A3	5	9	8	0	8	8	7	09/11/1999	ISNER ET AL	424	93.7	08/11/1996
	A4	6	4	1	0	0	1	5	25/06/2002	GORDON ET AL.	424	93.21	11/05/2000
	A5	0	0	6	8	0	4	5	06/05/2002	REUBINOFF ET AL.	424	93.7	14/03/2001

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER		DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION						
								YES NO						
	A6	9	5	0	5	4	5	2	23/02/1995	WO				

OTHER ART (including Author, Title, Date, Pertinent Pages, Etc.)

	A7	BAHARY, N., and Zon, L.I. (2001). Development. Endothelium--chicken soup for the endoderm. <i>Science</i> 294, 530-531.
	A8	BUSTELO, X.R., et al. (1993). Developmental expression of the vav protooncogene. <i>Cell Growth Differ</i> 4, 297-308.
	A9	CARMELIET, P., et al. (1996). Abnormal blood vessel development and lethality in embryos lacking a single VEGF allele. <i>Nature</i> 380, 435-439.
	A10	CHOI, K., et al. (1998). A common precursor for hematopoietic and endothelial cells. <i>Development</i> 125, 725-732.
	A11	DAVIS, S., et al. (1996). Isolation of angiopoietin-1, a ligand for the TIE2 receptor, by secretion-trap expression cloning. <i>Cell</i> 87, 1161-1169.
	A12	DOETSCHMAN, T.C., et al. (1985). The <i>in vitro</i> development of blastocyst-derived embryonic stem cell lines: formation of visceral yolk sac, blood islands and myocardium. <i>J Embryol Exp Morphol</i> . 1985; 87:27-45.
	A13	DZIERZAK, E. (1999). Embryonic beginnings of definitive hematopoietic stem cells. <i>Ann N Y Acad Sci</i> 872, 256-262; discussion 262-254.
	A14	FERRARA, N., et al. (1996). Heterozygous embryonic lethality induced by targeted inactivation of the VEGF gene. <i>Nature</i> 380, 439-442.
	A15	FISCHER, K.D., et al. (1995). Defective T-cell receptor signalling and positive selection of Vav-deficient CD4+ CD8+ thymocytes. <i>Nature</i> 374, 474-477.
	A16	GODIN, I., et al. (1995). Emergence of multipotent hemopoietic cells in the yolk sac and paraaortic splanchnopleura in mouse embryos, beginning at 8.5 days postcoitus. <i>Proc Natl Acad Sci U S A</i> 92, 773-777.
	A17	HAMAGUCHI, I., et al. (1999). <i>In vitro</i> hematopoietic and endothelial cell development from cells expressing TEK receptor in murine aorta-gonad-mesonephros region. <i>Blood</i> 93, 1549-1556.
	A18	HERRMANN, B.G., and Kispert, A. (1994). The T genes in embryogenesis. <i>Trends Genet</i> 10, 280-286.
	A19	HROMAS, R., et al. (1993). Hematopoietic lineage- and stage-restricted expression of the ETS oncogene family member PU.1. <i>Blood</i> 82, 2998-3004.
	A20	JIANG, Y., et al. (2002). Pluripotency of mesenchymal stem cells derived from adult marrow. <i>Nature</i> 418, 41-49.
	A21	KATZAV, S., et al. (1989). vav, a novel human oncogene derived from a locus ubiquitously expressed in hematopoietic cells. <i>Embo J</i> 8, 2283-2290.
	A22	KELLER, G. (2001). The Hemangioblast. In <i>Stem Cell Biology</i> , D.R. Marshak, R.L. Gardner, and D. Gottlieb, eds. (Cold Spring Harbor, Cold Spring Harbor Laboratory Press), pp. 329-348.
	A23	KELLER, G., et al. (1993). Hematopoietic commitment during embryonic stem cell differentiation in culture. <i>Mol Cell Biol</i> 13, 473-486.

	A24	KELLER, G., <i>et al.</i> (1999). Development of the hematopoietic system in the mouse. <i>Exp Hematol</i> 27, 777-787.
	A25	KEDDY, M., <i>et al.</i> (1997). A common precursor for primitive erythropoiesis and definitive haematopoiesis. <i>Nature</i> 386, 488-493.
	A26	LAMMERT, E., <i>et al.</i> (2001). Induction of pancreatic differentiation by signals from blood vessels. <i>Science</i> 294, 564-567.
	A27	LEVENBERG S., <i>et al.</i> (2002) Endothelial cells derived from human embryonic stem cells. <i>Proc Natl Acad Sci U S A</i> 99, 4391-4396.
	A28	LIM, S.K., <i>et al.</i> (1998). Increased susceptibility in Hp knockout mice during acute hemolysis. <i>Blood</i> 92, 1870-1877.
	A29	LIN, C.S., <i>et al.</i> (1996). Differential effects of an erythropoietin receptor gene disruption on primitive and definitive erythropoiesis. <i>Genes Dev</i> 10, 154-164.
	A30	MATSUMOTO, K., <i>et al.</i> (2001). Liver organogenesis promoted by endothelial cells prior to vascular function. <i>Science</i> 294, 559-563.
	A31	MCKERCHER, S.R., <i>et al.</i> (1996). Targeted disruption of the PU.1 gene results in multiple hematopoietic abnormalities. <i>Embo J</i> 15, 5647-5658.
	A32	MERCER, E.H., <i>et al.</i> (1991). The dopamine beta-hydroxylase gene promoter directs expression of <i>E. coli</i> lacZ to sympathetic and other neurons in adult transgenic mice. <i>Neuron</i> 7, 703-716.
	A33	MOMBAERTS, P., <i>et al.</i> (1992). RAG-1 deficient mice have no mature B and T lymphocytes. <i>Cell</i> 68, 869-877.
	A34	MOORE, M.S.A., and Metcalf, D. (1970). Ontogeny of the hematopoietic system: Yolk sac origin of <i>in vivo</i> and <i>in vitro</i> colony forming cells in the mouse embryo. <i>Br J Hematology</i> 18, 279-296.
	A35	MULLER, A.M., <i>et al.</i> (1994). Development of hematopoietic stem cell activity in the mouse embryo. <i>Immunity</i> 1, 291-301.
	A36	MURRAY, P.D.F. (1932). The development <i>in vitro</i> of the blood of the early chick embryo. <i>Proc Roy Soc London</i> 11, 497-521.
	A37	NERLOV, C., and Graf, T. (1998). PU.1 induces myeloid lineage commitment in multipotent hematopoietic progenitors. <i>Genes Dev</i> 12, 2403-2412.
	A38	NISHIKAWA, S.I., <i>et al.</i> (1998). Progressive lineage analysis by cell sorting and culture identifies FLK1+VE-cadherin+ cells at a diverging point of endothelial and hemopoietic lineages. <i>Development</i> 125, 1747-1757.
	A39	ORKIN, S.H. (2001). Hematopoietic Stem Cells: Molecular Diversification and Developmental Interrelationships. In <i>Stem Cell Biology</i> D.R. Marshak, R.L. Gardner, and D. Gottlieb, eds. (Cold Spring Harbor, Cold Spring Harbor Laboratory Press).
	A40	PEVNY, L., <i>et al.</i> (1991). Erythroid differentiation in chimaeric mice blocked by a targeted mutation in the gene for transcription factor GATA-1. <i>Nature</i> 349, 257-260.
	A41	ROBB, L., <i>et al.</i> (1996). The scl gene product is required for the generation of all hematopoietic lineages in the adult mouse. <i>Embo J</i> 15, 4123-4129.
	A42	ROBERTSON, E.J. (1987). Embryo-derived stem cell lines. In <i>Teratocarcinomas and embryonic stem cells: a practical approach</i> , E.J. Robertson, ed. (Oxford, IRL Press Limited), pp. 71-112.
	A43	ROGERS, M.B., <i>et al.</i> (1991). Specific expression of retinoic acid-regulated, zinc-finger gene, Rex-1, in preimplantation embryos, trophoblast and spermatocytes. <i>Development</i> 113, 815-824.
	A44	SABIN, E.R. (1920). Studies on the origin of blood vessels and of red corpuscles as seen in the living blastoderm of the chick during the second day of incubation. <i>Contributions to Embryology</i> 9, 213-262.
	A45	SCOTT, E.W., <i>et al.</i> (1994). Requirement of transcription factor PU.1 in the development of multiple hematopoietic lineages. <i>Science</i> 265, 1573-1577.
	A46	SHALABY, F., <i>et al.</i> (1995). Failure of blood-island formation and vasculogenesis in Flk-1-deficient mice. <i>Nature</i> 376, 62-66.
	A47	SIMON, M.C., <i>et al.</i> (1992). Rescue of erythroid development in gene targeted GATA-1- mouse embryonic stem cells. <i>Nat Genet</i> 1, 92-98.
	A48	SMITH, J. (1997). Brachyury and the T-box genes. <i>Curr Opin Genet Dev</i> 7, 474-480.
	A49	SURI, C., <i>et al.</i> (1998). Increased vascularization in mice overexpressing angiopoietin 1. <i>Science</i> 282, 468-471.
	A50	TAKAKURA, N., <i>et al.</i> (1998). Critical role of the TIE2 endothelial cell receptor in the development of definitive hematopoiesis. <i>Immunity</i> 9, 677-686.

A51	TARAKHOVSKY, A., <i>et al.</i> (1995). Defective antigen receptor-mediated proliferation of B and T cells in the absence of Vav. <i>Nature</i> 374, 473-470.
A52	TOUSSAINT, U. (2001). Brachyury, the blastopore and the evolution of the mesoderm. <i>Bioessays</i> 23, 78-794.
A53	WILES, M.V. (1993) Embryonic stem cell differentiation <i>in vitro</i> . <i>Methods in Enzymology</i> . 225, 900-918.
A54	WU, H., <i>et al.</i> (1995). Generation of committed erythroid BFU-E and CFU-E progenitors does not require erythropoietin or the erythropoietin receptor. <i>Cell</i> 83, 59-67.

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